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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,404	07/29/2003	Noriyuki Suzuki	00862.023154.	6374

5514 7590 02/20/2009

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EXAMINER	
CHERY, MARDOCHEE	
ART UNIT	PAPER NUMBER
2188	

MAIL DATE	DELIVERY MODE
02/20/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/628,404	SUZUKI ET AL.	
	Examiner	Art Unit	
	MARDOCHEE CHERY	2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-7,9-12 and 14-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-7,9-12 and 14-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 12, 2008 has been entered.

Response to Amendment

2. In response to the last Office action, claims 1 and 12 have been amended. Claims 1, 4-7, 9-12, and 14-16 are all the claims pending.

Response to Arguments

3. Applicant's arguments with respect to claims 1 and 12, see remarks filed October 2, 2008, pages 8-9, and December 1, 2008, have been considered but are not persuasive.

a. Applicant's representative argues that Yamamoto does not teach "waiting by a storage unit, until a write cache memory arranged inside the storage unit is flashed and/or rotation of a platter arranged inside the storage unit ends, after an invalidation unit starts to invalidate a connection."

Examiner respectfully disagrees. Yamamoto discloses [*an instruction for the permission of ejection of the storage medium is given from the system to the memory device after (i.e., wait until) the write processing is completed*; par. 0017; *a memory device including a removable storage medium and another secondary memory device*

used as a cache storage and the cache storage in controlled in such a manner that it is held in the storage medium and a write processing for the storage medium is performed in the case where information to be recorded in the storage medium exists in the cache storage, and an instruction for or the permission of ejection of the storage medium is given to the memory device after the write processing is complete; par. 0018; *under web cache program operation, the disk ejection inhibition circuit 315 takes a stationarily opened condition so that it does not transmit the disk ejection request signal from the disk ejection request signal generation circuit*; par. 0127].

b. Additionally, newly cited art, Childers, also discloses "waiting by a storage unit, until a write cache memory arranged inside the storage unit is flashed and/or rotation of a platter arranged inside the storage unit ends, after an invalidation unit starts to invalidate a connection" [col. 6, lines 30-35].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 4-7, 9-12, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto (2002/0032839) in view of Childers (5,444,690).

As per claim 1, Yamamoto discloses a storage unit which is detachable from an information processing apparatus having an ejecting unit configured to eject the storage unit [Fig. 2, *DVD-RAM disk 37 and DVD-RAM drive 33*; Fig.15; par. 0017], the storage unit having a storage medium for storing data from the information processing apparatus [Figs .2, *DVS-RAM disk 37 and DVD-RAM drive 33;* Fig. 15; paragraph 0012, lines 1-3, paragraphs [0013 and 0017-0018], comprising: output unit configured to output an eject permission signal, as a response to the eject instruction, to the information processing apparatus for ejecting the storage unit by said ejecting unit after completion of a wait [Fig. 15, *disk ejection mechanism 304; the disk ejection instructing signal issued in step 61 is supplied to the disk ejection mechanism 304 so that the disk 37 is ejected*; par. 0123; Fig. 4, step 49; par. 0011]; receiving unit configured to receive an eject instruction of ejecting the storage unit from the information apparatus [Fig. 15; *Disk ejection request signal generation circuit along with Disk ejection mechanism 304 receiving disk ejection instructing signal 61*]; an invalidation unit configured to invalidate a connection with the information processing apparatus when said receiving unit receives the eject instruction [Fig. 17, *disk ejection inhibition circuit 315, disk ejection mechanism 316, disk ejection request signal generation circuit 314*; par. 0127]; a waiting unit configured to wait until a write cache memory arranged inside the storage unit is flashed and/or rotation of a platter arranged inside the storage unit ends, after said invalidation unit starts to invalidate the connection [*an instruction for the permission of ejection of the storage medium is given from the system to the memory device after (i.e., wait until) the write processing is completed*; par. 0017, *a memory device including a removable storage medium and another secondary memory device used as a cache storage and the cache storage in controlled in such a manner that it is held in the storage medium and a write processing for the storage medium is performed*

in the case where information to be recorded in the storage medium exists in the cache storage, and an instruction for or the permission of ejection of the storage medium is given to the memory device after the write processing is complete; par. 0018; *under web cache program operation, the disk ejection inhibition circuit 315 takes a stationarily opened condition so that it does not transmit the disk ejection request signal from the disk ejection request signal generation circuit*; par. 0127]; and output unit configured to output an eject permission signal, as a response to the ejection instruction, to the information processing apparatus for ejecting the storage unit by said ejecting unit after completion of the wait of said -waiting unit [*an instruction for the permission of ejection of the storage medium is given from the system to the memory device after (i.e., wait until) the write processing is completed*; pars. 0017, 0018]; wherein said invalidation unit and said output unit are arranged inside the storage unit [Fig. 17, *disk ejection request signal generation circuit 314 along with disk ejection mechanism 316 output the generated disk ejection permitting signal 313 and disk ejection inhibition 315 are all located inside DVD RAM drive 33*; pars. 0017, 0018, 0122, 0123, 0127].

Though Yamamoto discloses a system controller [Fig. 2, *system controller 28*], Yamamoto does not explicitly teach the storage unit comprises a controller for controlling storage of data into the storage medium.

Childers, however, discloses a storage unit comprising a controller for controlling storage of data into the storage medium [col. 4, lines 13-17];

Thus, it would have been obvious to one of ordinary skill in the art at the time of invention by Applicant to modify the system of Yamamoto to include a storage unit comprising a controller for controlling storage of data into the storage medium because

doing so would have provided the control necessary for ejecting a detachable storage unit (col. 6, lines 26-30).

As per claim 4, Yamamoto discloses output unit uses an extra signal line [par.128].

As per claim 5, Yamamoto discloses said receiving unit receives an eject command as the eject instruction [par.11].

As per claim 6, Yamamoto discloses receiving unit receives a status of an operation switch as the eject instruction via an extra signal line [par.128].

As per claim 7, Yamamoto discloses the receiving unit further comprises switch receiving unit configure to receive a status of an operation switch, and notification unit configured to notify the information processing apparatus of an operation status of the operation switch on the basis of the status of the operation switch that is received by said switch receiving unit [pars.124 and 127].

As per claim 9, Yamamoto discloses the operation switch is arranged in the storage unit [Fig.17].

As per claim 10, Yamamoto discloses providing unit configured to provide a user

interface [par. 8]; issuing unit configured to issue eject instruction to the storage unit in accordance with user operation to the user interface [par.8]; and eject unit configured to eject the storage unit on the basis of an eject permission signal which is output from the storage unit in accordance with the eject instruction [par. 11].

As per claim 11, Yamamoto discloses monitoring unit configured to inquire of the storage unit as to a status of an operation switch, and monitoring a status signal representing the status of the operation switch [pars. 124 and 127]; issuing unit configured to issue eject instruction to the storage unit in accordance with user operation to a user interface provided by software or the status signal [par. 127]; and eject unit configured to eject the storage unit on the basis of an eject permission signal which is output from the storage unit in accordance with the eject instruction [par. 127].

As per claim 12, Yamamoto discloses an eject control method for a storage unit which is detachable from an information processing apparatus having an ejecting unit configured to eject the storage unit [Fig. 2, *DVD-RAM disk 37 and DVD-RAM drive 33*; Fig.15, steps 58-61; par. 0017], the storage unit having a storage medium for storing data from the information processing apparatus [Fig. 15, DVD-RAM 33], comprising: a receiving step, by the storage unit, an eject instruction to eject the storage unit from the information processing apparatus [Fig. 15; *Disk ejection request signal generation circuit along with Disk ejection mechanism 304 receiving disk ejection instructing signal 61*]; an invalidation step of invalidating, by the storage unit, a connection with the information processing

apparatus when the eject instruction is received in said receiving step [Fig. 17, *disk ejection inhibition circuit 315, disk ejection mechanism 316, disk ejection request signal generation circuit 314*; par. 0127]; a waiting step of waiting, by the storage unit, until a write cache memory arranged inside the storage unit is flashed and/or rotation of a platter arranged inside the storage unit ends, after said invalidation step starts to invalidate the connection [*an instruction for the permission of ejection of the storage medium is given from the system to the memory device after (i.e., wait until) the write processing is completed*; pars. 0017, 0018; *under web cache program operation, the disk ejection inhibition circuit 315 takes a stationarily opened condition so that it does not transmit the disk ejection request signal from the disk ejection request signal generation circuit*; par. 0127]; an output step of outputting, from the storage unit, an eject permission signal, as a response to the eject instruction, to the information processing apparatus for ejecting the storage unit by said ejecting unit after completion of the wait of said waiting unit [*an instruction for the permission of ejection of the storage medium is given from the system to the memory device after (i.e., wait until) the write processing is completed*; pars. 0017, 0018].

Though Yamamoto discloses a system controller [Fig. 2, *system controller 28*], Yamamoto does not explicitly teach the storage unit comprises a controller for controlling storage of data into the storage medium.

Childers, however, discloses a storage unit comprising a controller for controlling storage of data into the storage medium [col. 4, lines 13-17];

Thus, it would have been obvious to one of ordinary skill in the art at the time of invention by Applicant to modify the system of Yamamoto to include a storage unit comprising a controller for controlling storage of data into the storage medium because

doing so would have provided the control necessary for ejecting a detachable storage unit (col. 6, lines 26-30).

As per claim 14, Yamamoto discloses a housing apparatus which can be connected to an information processing apparatus [Fig. 15, *DVD-RAM 33*] comprising: an interface which realizes data communication between the storage unit and the information processing apparatus [Fig. 2, *system bus 30*; par. 0039]; a transmission unit configured to transmit the eject instruction from the information processing apparatus to the storage unit [Fig. 17, *Disk ejection request signal generation circuit 314 along with disk ejection mechanism 316 and disk ejection inhibition 315*; pars. 0127, 0128]; an eject mechanism which ejects the storage unit in accordance with the eject permission signal from the storage unit [Fig. 17, *disk ejection mechanism 316 along with disk ejection request signal generating circuit 314;* par. 0017].

As per claim 15, Yamamoto discloses the apparatus further comprises an eject designation switch, and said transmission unit to transmit the eject instruction to the storage unit in accordance with operation on said eject designation switch [Fig. 17, *disk ejection inhibition circuit 315;* pars. 124 and 127].

As per claim 16, Yamamoto discloses the receiving unit, after reception of the eject instruction, ignores a subsequent ejection instruction [0127].

Conclusion

6. When responding to the office action, Applicant is advised to clearly point out the patentable novelty that he or she thinks the claims present in view of the state of the art disclosed by references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. 1.111(c).

7. When responding to the Office action, Applicant is advised to clearly point out where support, with reference to page, line numbers, and figures, is found for any amendment made to the claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mardochee Chery whose telephone number is (571) 272-4246. The examiner can normally be reached on 8:30A-5:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 17, 2009

/M.C./

Mardochee Chery
Examiner
AU: 2188